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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,851

09/05/2006

Michel Rousseau

744.1009

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23280 7590 04/07/2009
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EXAMINER

BEAULIEU, YONEL

ART UNIT

PAPER NUMBER

3661

MAIL DATE

DELIVERY MODE

04/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,851	Applicant(s) ROUSSEAU, MICHEL	
	Examiner /Yonel Beaulieu/	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form (the abstract takes the form of a claim) and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "**means**" (line 6) and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Specification

The Examiner has not been able to identify EP-B-0825418 as noted in ¶0010.

Claim Rejections - 35 USC § 112

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 depends on claim 18 and it is not readily understood as to why the error probability in claim 19 is different than that of claim 18. Please clarify.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11 – 17 and 21 – 30 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 5884218 to Nimura et al (“Nimura”).

Regarding claims 11, 21, and 27, Nimura teaches determining a position of an object moving along a known course comprising steps of: determining (using sensor 21 in combination with sensor 23 in fig. 1) an absolute position of the object with a first confidence interval (col. 7, lines 47 – 52 at least); determining (using sensor 22 in combination with sensor 23) a relative position of the object with a second confidence

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interval (col. 7, lines 53 – 62 at least); determining a smaller confidence interval of the first and second confidence intervals and determining the position of the object using the absolute or relative position corresponding to the smaller confidence interval (the smaller confidence interval is construed as the shortest distance between two points along the route; note also col. 12, lines 60 – 67; col. 22, lines 52 – 62; col. 42, lines 35 – 64 at least).

Regarding claims 12 and 22, Nimura's object is a vehicle (as noted in col. 3, lines 32 – 34; col. 16, lines 2 – 4 at least).

Regarding claims 13 and 23, Nimura's vehicle is a train (as noted in col. 11, lines 1 – 5; col. 39, lines 17 – 30 at least).

Regarding claims 14, 15, 24, 25, 28, and 29, Nimura further teaches mapping trajectories (fig. 22) and at least one satellite communication GNSS receiver (item 25 in fig. 1).

Regarding claims 16, 26, and 30, Nimura further teaches detecting the presence and location of beacons (col. 7, line 65 – col. 8, line 13; col. 10, lines 23 – 30 at least).

Regarding claim 17, Nimura further teaches speed calculation via the GNSS Doppler signal (as supported by col. 7, lines 7 - 16 and 40 - 64 at least).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nimura ('218).

As discussed above, Nimura teaches all of the limitations except for the explicit recitation of the position being within an error probability in the order of 10^{-9} and an interval being in the order of 50 m.

However, it would have been obvious to one of ordinary skill in the GPS art at the time of the invention determining error probabilities in the determining an object position moving along a course is old and well-known. Furthermore, Nimura teaches 'shortest distance' between the starting point and the ending point; to provide an interval of 50 m would merely involve routine skill in the art at the time of the invention. Overall, it appears Nimura performs equally well.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. As per attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Yonel Beaulieu/ whose telephone number is (571) 272-6955. The examiner can normally be reached on Mon., Wed. & Thur. between 0900 and 1600.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas BLACK can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yonel Beaulieu/
Yonel Beaulieu
Primary Examiner
Art Unit 3661